MSW - Mini Switcher Series

MSW 4V

Four Input Composite Video Switcher

UNIQUE FEATURES

- Inputs: Four female BNC connectors for composite video
- Compatible with NTSC, PAL, and SECAM video formats
- 250 MHz (-3 dB) video bandwidth
- Vertical interval switching ensures glitch-free transitions

MODEL	VERSION DESCRIPTION	PART #
MSW 4V	Four Input Video	60-480-01

MSW 4SV

Four Input S-Video Switcher

UNIQUE FEATURES

- Inputs: Four female 4-pin mini DIN connectors for S-video
- Compatible with NTSC, PAL, and SECAM video formats
- 250 MHz (-3 dB) video bandwidth
- Vertical interval switching ensures glitch-free transitions

MODEL	VERSION DESCRIPTION	PART #
MSW 4SV	Four Input S-Video	60-480-02

MSW 4V SDI

Four Input SDI Video Switcher

UNIQUE FEATURES

- Inputs: Four female BNC connectors for SDI video
- Compatible with all SMPTE 259M composite, component, and widescreen serial standards
- Buffered and re-clocked outputs

MODEL	VERSION DESCRIPTION	PART #
MSW 4V SDI	Four Input SDI Video	60-481-01

MSW - Mini Switcher Series Accessories

OPTIONAL ACCESSORIES	MODEL DESCRIPTION	PAGE	PART #
RSU 129	1U 9.5" Deep Universal Rack Shelf Kit	page 759	60-190-01
RSF 123	1U 3.5" Deep VersaTools® Rack Shelf Kit	page 758	60-190-20
PMK 100	One VersaTools®, 1/4 Rack Width Mini Projector Mounting Kit	page 752	70-217-01
CCR 204	Four-Button Contact Closure Remote	page 281	60-794-02
IR 102 Remote Control Kit	IR to RS-232 or Contact Closure Conversion Kit	page 276	70-224-01

Continued →

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MSW - Mini Switcher Series

SPECIFICATIONS

VIDEO (MSW 4V & MSW 4SV)

Gain ..... Unity
Bandwidth
MSW 4V, MSW 4SV..... 250 MHz (-3 dB)
Differential phase error ..... <1.0º at 3.58 MHz and 4.43 MHz
Differential gain error ..... <1.0% at 3.58 MHz and 4.43 MHz
Crosstalk..... <-60 dB @ 3.58 MHz
Switching speed..... 20 ms (max.)

VIDEO (MSW 4V SDI)

Resolution ..... 8 or 10 bits, automatic
Operation standards..... 143 Mb/s (4fsc NTSC)
177 Mb/s (4fsc PAL)
270 Mb/s (4:2:2) component video
360 Mb/s (4:2:2) widescreen, autoselect
Equalization and reclocking... Automatic for up to -30 dB of cable loss

VIDEO INPUT

Number / Signal type
MSW 4V ..... 4 composite video
MSW 4SV..... 4 S-video
MSW 4V SDI..... 4 digital component video
Connectors
MSW 4V, MSW 4V SDI ..... 4 female BNC
MSW 4SV..... 4 female 4-pin mini DIN
Nominal level ..... 1 Vp-p for Y of S-video and for composite video
0.3 Vp-p for C of S-video
0.8 Vp-p for SDI
Minimum / Maximum levels... 0.4 V to 2.0 Vp-p with no offset
Impedance..... 75 ohms
Return loss
MSW 4SV ..... <-25 dB, DC @ 10 MHz
Other models..... <-40 dB, DC @ 10 MHz
DC offset (max. allowable)..... 5.0 V
Input coupling
MSW 4V, MSW 4SV..... DC
MSW 4V SDI..... AC

VIDEO OUTPUT

Number / Signal type
MSW 4V ..... 2 composite video
MSW 4SV..... 1 S-video, 1 composite video
MSW 4V SDI..... 2 reclocked SMPTE-259 serial digital component video
Connectors
MSW 4V, MSW 4V SDI ..... 2 BNC female
MSW 4SV..... 1 BNC female, (1) 4-pin mini DIN female
Nominal level ..... 1 Vp-p for Y of S-video and for composite video
0.3 Vp-p for C of S-video
0.8 Vp-p for SDI
Minimum / Maximum levels
MSW 4V, MSW 4SV..... 0.4 V to 2.0 Vp-p
Impedance..... 75 ohms
Return loss ..... <-30 dB @ 5 MHz
DC offset..... ±5 mV maximum with input at 0 offset
Switching type
(MSW 4V/4SV) ..... Vertical interval

SYNC

Standards
MSW 4V, MSW 4SV..... NTSC 3.58, NTSC 4.43, PAL, SECAM
MSW 4V SDI..... SMPTE-259

CONTROL / REMOTE – SWITCHER

Contact closure..... (1) 3.5 mm captive screw connector, 5 pole
Contact closure
pin configurations..... See switcher's panel.

GENERAL

External power supply ..... 100 VAC to 240 VAC, 50/60 Hz, external, autoswitchable; to 12 VDC, regulated
Power input requirements
MSW 4V, MSW 4SV..... 2.4 watts, 12 VDC, 0.2 A
MSW 4V SDI..... 4.8 watts, 12 VDC, 0.4 A
Temperature / Humidity..... Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing
Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Rack mount ..... Yes, with optional 1U rack shelf #60-190-01 or 60-190-20;
also under-furniture mountable with optional brackets #70-212-01,
or projector mountable with optional brackets #70-217-01
Enclosure type..... Metal
Enclosure dimensions..... 1.7" H x 4.3" W x 3.0" D (1U high, quarter rack wide)
4.3 cm H x 10.9 cm W x 6.5 cm D
(Depth excludes connectors.)
Product weight ..... 0.6 lbs (0.3 kg)
Shipping weight..... 3 lbs (2 kg)
Vibration ..... ISTA 1A in carton (International Safe Transit Association)
Listings..... UL, CUL
Compliances ..... CE, FCC Class A, VCCI, AS/NZS, ICES
MTBF ..... 30,000 hours
Warranty ..... 3 years parts and labor

NOTE: All nominal levels are at ±10%. Specifications are subject to change without notice.

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